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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,649	07/16/2003	Gordon S. Hewitt	024.0007	1037

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INGRASSIA FISHER & LORENZ, P.C.  
7150 E. CAMELBACK, STE. 325  
SCOTTSDALE, AZ 85251

EXAMINER
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PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/621,649

Applicant(s)

HEWITT ET AL.

Examiner

Jeff Piziali

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 17-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-16, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed (on 22 December 2006) in this application after final rejection (mailed 23 August 2006). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 December 2006 has been entered.

### ***Drawings***

2. The drawings were received on 8 December 2005. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11-16, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kakizawa (US 6,580,556 B2).

Regarding claim 11, Kakizawa discloses a method [Fig. 1; 10] of producing a stereoscopic image of a scene on a stereoscopic display [Fig. 1; 12a, 12b] for an observer [Fig. 1; A, B], the method comprising the steps of: obtaining at least two video signals [Fig. 2; 18a-18d] of the scene; processing [Fig. 3; 20] the at least two video signals to generate stereoscopic image data; displaying the stereoscopic image on the stereoscopic display such that the stereoscopic image [i.e. right and left images] appears at a viewing surface [Fig. 1; 12a, 12b -- e.g., a computer monitor] (see Column 1, Lines 48-54); and obscuring [Fig. 2; 14] at least a portion of the stereoscopic display from the observer with a mid-window [Fig. 2; 16] (see Column 1, Line 45 - Column 2, Line 50) to thereby prevent frame violation effects in the stereoscopic image, such that objects appearing in front of the viewing surface are not blocked by an edge of a display frame [e.g., a computer monitor frame] (see Fig. 4; Column 3, Lines 1-28 -- wherein any object placed in front of the viewing surface will inherently not be blocked by a display frame placed behind it).

Regarding claim 12, Kakizawa discloses the stereoscopic display comprises left [Fig. 2; 12b] and right [Fig. 2; 12a] modules having a display convergence point [Fig. 1; 16] corresponding to the intersection of centerlines projecting from the left and right modules (see Column 1, Line 45 - Column 2, Line 16).

Regarding claim 13, Kakizawa discloses the processing step comprises generating a focus point [Fig. 1; A, B] for the stereoscopic image that is distinct from the display convergence point (see Column 1, Line 45 - Column 2, Line 16).

Regarding claim 14, Kakizawa discloses each of the at least two video signals is produced by one of a plurality of cameras [Fig. 2; 18a-18d] (see Column 2, Lines 17-40).

Regarding claim 15, Kakizawa discloses the plurality of cameras is configured with a convergence point [Fig. 2; 16] for the at least two video signals (see Column 2, Lines 17-40).

Regarding claim 16, Kakizawa discloses the convergence point [Fig. 1; 16] is located closer to the plurality of cameras than a closest object [e.g. the user] appearing in the scene (see Column 2, Lines 17-40).

Regarding claim 24, this claim is rejected by the reasoning applied in rejecting claim 11; furthermore, Kakizawa discloses obscuring [Fig. 2; 14] at least a portion of the stereoscopic display from the observer with a mid-window [Fig. 2; 16] (see Column 1, Line 45 - Column 2, Line 50) to thereby prevent blocking of a displayed object in the stereoscopic image that appears in front of the viewing surface by another displayed object in the stereoscopic image that appears behind the displayed object (see Fig. 4; Column 3, Lines 1-28 -- wherein any displayed object appearing in front of the viewing surface will inherently not be blocked by another displayed object that appears behind the displayed object).

Regarding claim 25, this claim is rejected by the reasoning applied in rejecting claims 11 and 24; furthermore, Kakizawa discloses displaying the stereoscopic image on the stereoscopic

display such that the stereoscopic image [i.e. right and left images] appears at a viewing surface [Fig. 1; 12a, 12b -- e.g., a computer monitor] (see Column 1, Lines 48-54) and within a viewing window [e.g., the computer monitor's housing frame] having a perimeter; and obscuring [Fig. 2; 14] at least a portion of the stereoscopic display from the observer with a mid-window [Fig. 2; 16] (see Column 1, Line 45 - Column 2, Line 50) to thereby prevent frame violations in the stereoscopic image; wherein frame violations occur when objects intended for display behind the viewing surface are displayed in a manner that makes the objects appear in front of the viewing surface (see Fig. 4; Column 3, Lines 1-28).

### ***Response to Arguments***

5. Applicants' arguments filed 22 December 2006 have been fully considered but they are not persuasive.

The applicants contend the cited prior art of Kakizawa (US 6,580,556 B2) neglects teaching the newly added subject matter of: *preventing frame violation effects in the stereoscopic image, such that objects appearing in front of the viewing surface are not blocked by an edge of a display frame; preventing blocking of a displayed object in the stereoscopic image that appears in front of the viewing surface by another displayed object in the stereoscopic image that appears behind the displayed object; and preventing frame violations in the stereoscopic image, wherein frame violations occur when objects intended for display behind the viewing surface are displayed in a manner that makes the objects appear in front of the viewing surface* (see Pages 8-9 of the 'Response Accompanying RCE' filed 22 December 2006). However, the examiner respectfully disagrees.

Kakizawa discloses preventing frame violation effects in the stereoscopic image, such that objects appearing in front of the viewing surface are not blocked by an edge of a display frame [e.g., a computer monitor frame] (see Fig. 4; Column 3, Lines 1-28 -- wherein any object placed in front of the viewing surface will inherently not be blocked by a display frame placed behind it).

Kakizawa also discloses preventing blocking of a displayed object in the stereoscopic image that appears in front of the viewing surface by another displayed object in the stereoscopic image that appears behind the displayed object (see Fig. 4; Column 3, Lines 1-28 -- wherein any displayed object appearing in front of the viewing surface will inherently not be blocked by another displayed object that appears behind the displayed object).

Furthermore, Kakizawa discloses preventing frame violations in the stereoscopic image; wherein frame violations occur when objects intended for display behind the viewing surface are displayed in a manner that makes the objects appear in front of the viewing surface (see Fig. 4; Column 3, Lines 1-28). Wherein Kakizawa states that his imaging system and method allows the viewer to "obtain a full, undistorted image of the stereoscopic that results from the left and right image pairs 12" (see Column 2, Lines 4-6).

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali  
5 March 2007